

REMARKS

In the Office Action, the Examiner rejected claims 1-9 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 6,035,526 of Saruta et al. ("Saruta"); and rejected claims 10-15 under 35 U.S.C. § 103(a) as unpatentable over Saruta and U.S. Patent No. 5,771,082 of Chaudet et al. ("Chaudet").¹

Applicant has amended claims 1, 3-6, 8-10 and 12-14 to more appropriately define the invention. Applicant has also added new Claims 16 and 17 to cover further aspects of the invention. Claims 1-17 are pending.

Rejection of Claims 1-9 under 35 USC § 102(b)

Applicant respectfully traverses the Examiner's rejection of claims 1-9 as being anticipated by Saruta.

In order to properly establish that Saruta anticipates Applicant's claimed invention under 35 U.S.C. § 102, each and every element of each of the claims in issue must be found, either expressly described or under principles of inherency, in that single reference. Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." See M.P.E.P. § 2131, quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920, (Fed. Cir. 1989). Regarding the 35 U.S.C. § 102(b) rejection, Saruta does not disclose each and every element of Applicant's present invention as claimed.

Amended claim 1 is directed to a device *for repairing a defective pixel electrode on a thin film transistor substrate of a liquid crystal display*, comprising: an applicator for

¹ The Examiner's statement of the rejection under § 103(a) at page 3 of the Office Action does not mention Chaudet. However, in the discussion of that rejection, the Examiner appears to rely on Chaudet.

being precisely positioned on the defective pixel electrode; and a tank containing an opaque material, *wherein the applicator applies the opaque material on the defective pixel electrode of the thin film transistor substrate of the liquid crystal display.*

Amended Claim 5 is directed to a method for repairing a liquid crystal display, comprising: providing a thin film transistor substrate of a liquid crystal display having a defective pixel electrode; providing an applicator with an opaque material; positioning the applicator on the defective pixel electrode; and *moving the applicator for getting in contact with the defective pixel electrode such that the opaque material is applied on the defective pixel electrode.*

The Examiner asserts on page 2 of the Office Action that “Saruta teaches a device for repair [of] a liquid crystal display comprising an applicator . . . and a tank for containing the opaque material . . . wherein the applicator applies the opaque material on the defective TFT substrate of the liquid crystal display (figure 12G)” (emphasis added). However, Applicant respectfully draws the Examiner’s attention to the fact that figure 12G of Saruta shows an opaque material (ink) applied on the defective substrate having a black matrix and color filters (column 5, line 64 to column 6, line 15). Figure 12G of Saruta does not show an ink applied on a TFT substrate having pixel electrodes.

Nowhere does Saruta teach or suggest an “*applicator [that] **applies the opaque material on the defective pixel electrode of the thin film transistor substrate of the liquid crystal display***” (emphasis added) as required by Applicant's amended claim 1, or “*moving the applicator for getting in contact with the defective pixel electrode such that **the opaque material is applied on the defective pixel electrode***” (emphasis added) as required by Applicant’s amended claim 5.

Therefore, Saruta fails to disclose each and every element of Applicant's independent claims 1 and 5. As a result, claims 1 and 5 are not anticipated by Saruta and are patentable thereover. Claims 2-4 and 6-9 are also patentable at least due to their respective dependence from patentable claims 1 and 5.

Rejection of Claims 10-15 under 35 USC § 103(a)

Applicant respectfully traverses the Examiner's rejection of claims 10-15 as being unpatentable over Saruta and Chaudet.

In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, the prior art reference (or references when combined) must teach or suggest all the claim elements. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify a reference or to combine reference teachings. Third, there must be a reasonable expectation of success. See M.P.E.P. § 2143.

The Examiner asserts that Fig. 8 of Chaudet discloses a LCD "having a plurality of scan lines, a plurality of data lines, a plurality of pixel electrodes, and a plurality of TFTs individually electrically connected to scan lines, the data lines and data electrodes and pixel electrodes," (Office Action at page 3). Chaudet seems to disclose some of the structure of a liquid crystal screen. Fig. 8 of Chaudet shows a top view of the liquid crystal screen, which "represents a pair of the matrix lattice including the electrodes, the components controlling them and the connections, as well as a ground plane" (column 6, lines 1-3). Chaudet explains at column 6, lines 18-19 that the "component considered here is a thin film transistor (TFT)." It does not appear to Applicant that Chaudet discloses in detail all of the features alleged by the Examiner. Nevertheless, assuming, *arguendo*, that Chaudet does disclose these features, the combination of

Saruta and Chaudet still fails to disclose or suggest Applicant's claimed invention including "an opaque material applied on the defective pixel electrode of the thin film transistor substrate" as recited in independent claim 10. Therefore, claim 10 is patentable over Saruta and Chaudet. Claims 11-15 are also patentable due to their dependence from claim 10.

Additionally, Saruta and Chaudet fail to teach or suggest that "the defective pixel electrode having the opaque material applied thereon is formed as a dark dot," as required by claim 12. Thus, claim 12 is also patentable for this additional reason.

Further, Applicant submits that the Examiner's comments regarding claims 11-15 as product-by-process claims are moot in view of the dependence of claims 11-15 from allowable claim 10.

New Claims 16-17

The cited references do not teach or suggest that "the defective pixel electrode is formed as a dark dot after the application of the opaque material on the defective pixel electrode" as recited in new claims 16 and 17. Therefore, new claims 16 and 17 are allowable not only due to their dependence from allowable claims 1 and 5, respectively, but also in view of their additional limitations.

In view of the above amendments and remarks, the pending claims are patentable over the cited references. Reconsideration and withdrawal of the rejections are respectfully requested. Allowance of Claims 1-17 is solicited so that this application may be passed to issuance.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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